

Development of methods of phosphorylation of citral by medial and acidic phosphites

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Abstract

The reactions of trimethyl phosphite with citral in the presence of acetic acid, triphenyl phosphite with citral in the presence of water and trimethyl phosphite with citral in the presence of water and triethylamine in the methanol solution were studied. On the basis of these studies, dienyl 1-hydroxyphosphonates were obtained. A convenient method of synthesizing unsaturated 1-hydroxyphosphonates was developed on the basis of reaction of dialkyl phosphites with citral in the presence of triethylamine in molar ratio 4:2:8 in alcohol solutions.

Keywords

Citral, Dialkyl phosphites, Phosphorylation, Trimethyl phosphite, Triphenyl phosphite